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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,031	03/26/2001	Rabah Arhab	1200.465	3435
7590 02/02/2004				
Longacre & White 6550 Rock Spring Drive Suite 240 Bethesda, MD 20817		EXAMINER BURCH, MELODY M		
		ART UNIT		PAPER NUMBER
		3683		

DATE MAILED: 02/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/806,031

Applicant(s)

ARHAB ET AL.

Examiner

Melody M. Burch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 8-12, 14, 15, 17, 18, 20-25 and 27-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 13, 16, 19 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/22/03 has been entered.

Election/Restrictions

2. Claims 8-12, 14, 15, 17, 18, 20-25, 27-44 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 14.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4177885 to Ross.

Re: claim 1. Ross shows in the figure a hydrokinetic coupling apparatus comprising a casing 12 having a transverse wall shown to the left of the element 50 coupled in rotation to a driving shaft, a turbine wheel 18 mounted within the casing and fixed to a hub or bottom portion of element 34 which is adapted to be coupled in rotation to a driven shaft, a fixed first surface on the transverse wall of the casing (the surface facing element 50), and a lock-up clutch 42 interposed between the turbine wheel and the transverse wall and comprising a piston 44 carrying a second surface shown abutting the right side of element 74 which lies facing the first surface for coupling the second surface releasably to the transverse wall, wherein a friction means 92 acts between a face of the piston opposite the second surface and a radial plate or upper portion of element 34 of the hub situated in facing relationship thereto, wherein the piston is so configured as to carry the friction means as shown.

5. Claim 1, 2, 5, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 3239037 to Croswhite et al.

Re: claim 1. Croswhite et al. show in figure 1 a hydrokinetic coupling apparatus comprising a casing 44 having a transverse wall shown to the left of the element 98 coupled in rotation to a driving shaft 30, a turbine wheel 18 mounted within the casing and fixed to a hub or bottom portion of element 58 which is adapted to be coupled in rotation to a driven shaft 60, a fixed first surface on the transverse wall of the casing (the surface facing element 98), and a lock-up clutch shown in the area of element 104 interposed between the turbine wheel and the transverse wall and comprising a piston 98 carrying a second surface shown abutting the right side of element 104 via element

106 which lies facing the first surface for coupling the second surface releasably to the transverse wall, wherein a friction means 56,100 acts between (particularly, the right portion of element 100 and the middle portions of element 56 of the friction means act between) a face of the piston opposite the second surface and a radial plate or upper portion of element 58 of the hub situated in facing relationship thereto, wherein the piston is so configured as to carry the friction means as shown.

Re: claims 2 and 5. Croswite et al. show in figure 1 the limitation wherein the friction means 56,100 has at least one projecting element 56 engaged in a complementary hole of the piston as shown.

Re: claim 26. Croswite et al. show in figure 1 a hydrokinetic coupling apparatus comprising a casing 44 having a transverse wall shown to the left of the element 98 coupled in rotation to a driving shaft 30, a turbine wheel 18 mounted within the casing and fixed to a hub 58 which is adapted to be coupled in rotation to a driven shaft 60, a fixed first surface on the transverse wall of the casing (the surface facing element 98), and a lock-up clutch shown in the area of element 104 interposed between the turbine wheel and the transverse wall and comprising a piston 98 carrying a second surface shown abutting the right side of element 104 via element 106 which lies facing the first surface for coupling the second surface releasably to the transverse wall, wherein the turbine wheel includes an annular ring shown surrounding element 56 which is fixed to the hub by means of at least one rivet 56, and wherein a friction means 100 (the right portion of which) acts between the hub and the piston, and wherein the friction means is carried by the at least one rivet as shown in figure 1.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross.

Re: claims 2 and 3. Ross shows in the figure the limitation of the friction means or the piston (particularly, the friction means 92) having a portion engaged in a complementary hole or blind hole as shown of the other one of the elements consisting of the piston and friction means (particularly, the piston 44).

Ross lacks the limitation of the portion engaged with the complementary hole being shaped such that it formed an at least one projecting element.

In *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) the court held that the configuration of a claimed object was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration was significant. Examiner maintains that since Applicant failed to provide criticality regarding the portion of one of the friction means and the piston being shaped to include at least one projecting element, Examiner maintains that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the hole engaged portion of the friction means of Ross to have been shaped to

include at least one projecting element in order to provide a means of more securely connecting the friction means to the piston.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ross in view of US Patent 5795166 to Meixler.

Ross, as modified, describes the invention substantially as set forth above, but does not include the limitation of the blind hole being one of press formed, formed by drilling partway through, and by extrusion.

Meixler teaches in col. 3 lines 35-37 the use of a blind hole being formed by drilling (by definition the drilling of a blind hole would be only partway through). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the way in which the blind hole of Ross was formed to have included drilling partway through, as taught by Meixler, in order to provide an alternate and well-known means of creating a hole to securely hold the friction means. Examiner notes that Meixler is used solely for the teaching of the means of forming a blind hole. Examiner further notes that the patentability of this product-by process claim is based on the product itself and not the method of production. See MPEP 2113.

9. Claims 6, 7, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Croswite et al.

Re: claims 6 and 7. Croswite et al. are silent as to the shape of the hole. In *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) the court held that the configuration of a claimed object was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular

configuration was significant. Since Applicant has failed to provide an explanation of criticality associated with the claimed shapes, Examiner maintains that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the hole of Croswite et al. to have included an oblong circumferential form or be cylindrical, in order to provide a means of most effectively accommodating the at least one projecting means of the friction means or the piston depending on the shape of the at least one projecting means.

Re: claim 13. Croswite et al. are silent as to the material of the friction means and the condition of the at least one body 56 of the friction means engaged in the hole after hot working. With regards to the material limitation, Examiner notes that It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the friction means of Croswite et al. to have included synthetic material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. Examiner notes that Applicant has failed to provide an explanation of criticality associated with the friction means material selection.

With regards to the hot working limitation, Examiner notes that Croswite et al. teach the friction means being engaged in the hole of the piston to the same extent as Applicant. The reference is silent to the way in which the engagement occurs, nevertheless the patentability of this product-by process claim is based on the product itself. Furthermore, since sealing engagement by way of hot working is an old and well-

known method of securely connecting elements, burden shifts to Applicant to show an unobvious difference that would result from the claimed processes. See MPEP 2113.

10. Claims 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross in view of US Patent 5161428 to Petruccello.

Ross, as modified, describes the invention substantially as set forth above, but does not include the limitation of snap-fitting means being interposed between the piston and the friction means.

Petruccello teaches in col. 3 line 56 – col. 4 line 2 the use of snap-fitting means 36 being interposed between a support means 32 and a support structure 34 to which the support means is secured. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the connection of the friction means (support means of Ross) to the piston (support structure of Ross) to have included snap-fitting means interposed between the two elements, as taught by Petruccello, in order to provide an old and well-known means of retaining the friction means on the piston as taught by Petruccello the last line of col. 3 through line 2 of col. 4.

Response to Arguments

11. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

12. Applicant's arguments filed 4/22/03 with regard to the Ross reference have been fully considered but they are not persuasive. Applicant argues that element 92 of Ross does not function to act as a friction means. Examiner maintains that friction is defined as the rubbing of one body against another. Since the right surface of element 92 rubs

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against the left surface of element 34 in element 92's function to assist the piston in the initial engagement of the clutch, Examiner maintains that element 92 is a friction means as broadly claimed.

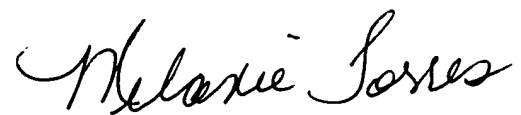
Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

mmb 1/23/04
mmb
January 23, 2004



MELANIE TORRES
PATENT EXAMINER

1-25-04